**WHAT IS CLAIMED IS:**

1. An aqueous slurry for use in selectively removing silicon dioxide in preference to silicon nitride from a surface of an article by chemical-mechanical polishing comprising abrasive particles and an organic compound having both a carboxylic acid functional group and a second functional group selected from amines and halides.

2. The aqueous slurry according to claim 1 wherein the second functional group is in the alpha position relative to the carboxylic acid functional group.

3. The aqueous slurry according to claim 1 wherein the organic compound is an amino acid.

4. The aqueous slurry according to claim 3 wherein the amino acid is one or more selected from the group consisting of proline, glycine, alanine, arginine, and lysine.

5. The aqueous slurry according to claim 1 wherein the abrasive particles comprise one or more selected from the group consisting of alumina, ceria, copper oxide, iron oxide, nickel oxide, manganese oxide, silica, silicon carbide, silicon nitride, tin oxide, titania, titanium carbide, tungsten oxide, yttria, and zirconia.

6. The aqueous slurry according to claim 1 further comprising an acid or a base for adjusting the pH of the slurry within the range of from about 4 to about 12.

7. The aqueous slurry according to claim 6 wherein the acid comprises $HNO_3$.

8. The aqueous slurry according to claim 6 wherein the base comprises KOH or $NH_4OH$.

9. An aqueous slurry for use in selectively removing silicon dioxide in preference to silicon nitride from a surface of an article by chemical-mechanical polishing comprising abrasive particles selected from the group consisting of ceria and titania and an organic compound comprising an α-amino acid.

10. The aqueous slurry according to claim 9 wherein the abrasive particles are ceria, the α-amino acid is L-proline, and the slurry has a pH within the range of from about 6 to about 11.

11. A method of removing silicon dioxide in preference to silicon nitride from a surface of an article by chemical-mechanical polishing comprising polishing said surface using a polishing pad, water, abrasive particles, and an organic compound having both a carboxylic acid functional group and a second functional group selected from amines and halides.

12. The method according to claim 11 wherein the second functional group is in the alpha position relative to the carboxylic acid functional group.

13. The method according to claim 11 wherein the organic compound is an amino acid.

14. The method according to claim 13 wherein the amino acid is one or more selected from the group consisting of proline, glycine, alanine, arginine, and lysine.

15. The method according to claim 11 wherein the abrasive particles comprise one or more selected from the group consisting of alumina,

ceria, copper oxide, iron oxide, nickel oxide, manganese oxide, silica, silicon carbide, silicon nitride, tin oxide, titania, titanium carbide, tungsten oxide, yttria, and zirconia.

16. The method according to claim 15 wherein the abrasive particles are bonded to the polishing pad.

17. The method according to claim 11 further comprising an acid or a base for adjusting the pH within the range of from about 4 to about 12.

18. The method according to claim 17 wherein the acid comprises $HNO_3$.

19. The method according to claim 17 wherein the base comprises KOH or $NH_4OH$.

20. The method according to claim 11 wherein the selectivity for silicon dioxide removal over silicon nitride removal is increased by increasing the concentration of the organic compound present during polishing.

21. A method of removing silicon dioxide in preference to silicon nitride from a surface of an article by chemical-mechanical polishing comprising polishing said surface using a polishing pad, water, abrasive particles selected from the group consisting of ceria and titania, and an organic compound comprising an α-amino acid.

22. The method according to claim 21 wherein the abrasive particles are ceria, the α-amino acid is L-proline, and the slurry has a pH within the range of from about 6 to about 11.

23. The method according to claim 21 wherein the abrasive particles are bonded to the polishing pad.